ENDURA MODEL KEH3500GF

Operator's Manual

Hot Water Pressure Washer

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IMPORTANT SAFETY INSTRUCTIONS

1. Read all safety and operating instructions before using the unit.

2. Read warnings on additive containers.

3. Ventilate work area when using toxic or pungent additives to reduce your exposure to toxic fumes.

4. Use proctective wear, especially for the eyes and skin.

5. Be careful of slippery floors. Some additives make a normally safe area extremely slippery and dangerous.

6. Keep children away from the machine and wash area.

7. Do not change nozzle size. Each machine is designed to operate with a specific size nozzle. An incorrect nozzle could cause excessive pressure resulting in pump damage and possible personal injury. Refer to parts list for correct nozzle size.

8. Do not point the nozzle where damage or injury could result. Eg. eyes, skin, people, animals. The water discharge from this unit is under extremely high pressure.

9. Do not point the nozzle toward an electrical outlet as you risk severe shock and personal injury.

10. Use only recommended No. 1 or No. 2 fuel oil in this unit. **Do not use gasoline, crankcase drainings, or oil containing gasoline or solvents.**

11. Never run the unit in an enclosed area. Exhaust fumes are poisonous. Ensure all areas are properly vented in accordance with local regulating and/or CSA standard B139.

12. Whenever you stop spraying, always engage the safety latch on the trigger gun.

13. Whenever changing nozzles, always turn the engine off and always relieve the pressure by triggering the gun. Always engage the safety latch on the trigger gun. Always change the nozzle with the gun and wand pointed away from you, and never pointed at any person or animal.

WARNING: RISK OF INJECTION OR SEVERE INJURY. KEEP CLEAR OF NOZZLE. DO NOT DIRECT DISCHARGE STREAM AT PERSONS. THIS EQUIPMENT IS TO BE USED ONLY BY TRAINED OPERATORS.

PRE-OPERATING INSTRUCTIONS

When unpacking the unit, if you find damage due to shipping, contact your dealer.

INCOMING WATER SUPPLY

Connect a garden hose to the water inlet of the unit. The water supply must be able to deliver 8 gallons per minute at a minimum pressure of 5 psi.
See “Specifications and Features” sheet in this manual.

OUTGOING (HIGH PRESSURE) WATER

To the water outlet fitting, connect the high pressure hose, trigger gun, extension and nozzle.

PUMP - OIL

Before operating the pump, check to see that the oil is level with the dot on the sight gauge which is located at the rear of the pump. The oil level can also be checked using the dipstick which is attached to the oil filler cap. Ensure that the vent hole in the cap/dipstick is clear of dirt. When oil is required, use #20 or #30 non-detergent heavy duty oil.

BURNER - FUEL

FILL THE BURNER FUEL TANK WITH NO. 1 OR NO. 2 FUEL OIL

BATTERY

CAUTION : BATTERY MUST BE INSTALLED BEFORE STARTING THE ENGINE. (THE ENGINE WILL START WITHOUT THE BATTERY INSTALLED, BUT DAMAGE WILL OCCUR.)

OPERATING INSTRUCTIONS

STARTING THE PRESSURE WASHER

1 Make sure that the burner switch is “OFF”, and that all other switches are in the “OFF” position.
2 Connect water supply to the Washer.
3 Pick up spray gun and hold it firmly, and pull on the gun trigger to evacuate all air in the system. Release gun trigger.

Never run Washer without water turned on!

STARTING THE ENGINE

1 Hold securely and open the Trigger Gun to reduce the load on the engine.
2 Turn the Engine Switch on.
3 Start Engine.
4 Advance the throttle to bring the engine to full speed.

Caution: The force of the water leaving the nozzle causes a kick-back or recoil at the trigger gun.

BURNER START UP

- Turn Burner Switch to “ON”.
  SEE PAGE 5 FOR DETAILED BURNER START UP INSTRUCTIONS.

WARNING RE BURNER FUEL: DO NOT USE GASOLINE, CRANKCASE OIL, ANY OIL-CONTAINING GASOLINE, OR ANY OTHER VOLATILE SUBSTANCE.

CAUTION: DO NOT RUN THE FUEL PUMP DRY. ALWAYS CHECK THE FUEL LEVEL IN THE TANK BEFORE RUNNING THE WASHER.

CHANGING PRESSURE

The variable Unloader Valve is already set to full pressure. Do not adjust the Unloader past the maximum pressure, as this will not increase the performance, and the excessive shutoff pressure will damage the Washer.

CLEANING CHEMICALS

For chemical application, insert soap nozzle at the end of the lance. To change concentration, adjust metering valve toward open or close. Use only chemicals with a PH between 7.0 and 10.0.

STOPPING THE WASHER

- Ensure Chemical Valve is “OFF”, then shut off Burner Switch.
- Pump cold water through the Washer for two minutes.
- Retard the throttle until the engine to idling.
- Shut off Engine Switch and turn on Trigger Gun to release pressure in the line.

BURNER START UP INSTRUCTIONS

(In the event that the burner has been replaced)

1. Set the Thermostat substantially above water temperature of the incoming water supply. (In temperate regions, this is around 50 degrees Fahrenheit.)

2. Turn on the burner switch.

3. As soon as the burner motor starts rotating, bleed (prime) the fuel pump. To do this, attach the clear plastic hose over the vent plug. Loosen the plug and catch the fuel in an empty container. Tighten the plug when all the air appears to be eliminated.

4. If the burner stops during bleeding, wait three to five minutes for the control Safety Switch to cool, then reset it manually.

5. If the burner stops after flame is established, additional venting is probably required. Repeat the bleeding procedure.

CAUTION: Do not attempt to start the burner when excess fuel has accumulated, or when the furnace or boiler is full of vapor, or when the combustion chamber is hot.

ADJUSTING THE BURNER

NOTE: The settings below have already been completed for this unit, so the following instructions for adjusting apply only if a new burner or coil is installed.

1. Allow sufficient air to obtain a clean looking flame by loosening the lock screws and moving the air shutter, and if necessary, the bulk air band.

2. **Draft Control Adjustments:** The unit is set up in the factory to burn cleanly into atmospheric conditions. Therefore if a chimney is fitted to the machine, an "O" draft would be the optimum condition.

3. **Final Air-Adjustments:** Allow at least ten minutes for warm-up, and longer if the unit is new, in order to burn off the oil deposits on the heat exchanger and other surfaces. Check and adjust all controls. (See Manufacturer's Instructions sheets.) Test the primary control Safety Switch to insure a safety shutdown will occur in the event of equipment malfunction.

SAFETY COMPONENTS

UNLOADER VALVE

The Unloader Valve allows all of the water delivered by the pump to return to the pump suction side. If the trigger gun is closed or “OFF”, the Unloader Valve goes into the “bypass mode” and the pump runs without pressure. **HOWEVER, THE PUMP MAY BE SEVERELY DAMAGED, DUE TO EXCESSIVE OVERHEATING, IF LEFT RUNNING IN THE “BYPASS MODE” OR “GUN-OFF” SITUATION FOR MORE THAN 6 MINUTES.**

SAFETY RELIEF VALVE

The Relief Valve prevents the machine from being subjected to abnormally high pressures. If this situation occurs, the valve will blow off relieving the pressure in the coil. This valve may also operate if the unloader is adjusted too high.

PRESSURE SWITCH

The Pressure Switch ensures that there is pressure, and therefore there is water flow at the head of the pump. This control does not operate at less than 300 psi. Therefore if the pump is on “bypass mode”, the burner will not operate.

THERMOSTAT

The built-in thermostat allows temperature adjustment up to 212 °F.

THINGS TO CHECK REGULARLY

1. Check for SYSTEM LEAKS. Leaks in the pressure side of the system can cause premature wear (or even failure) of the pump. The WARNING signal for this kind of leak is “frequent” cycling of the unloader. (“FREQUENT” means more than once every 2 minutes in the “Gun-Off” position.) Check the gun and swivel joints for leaks.

2. Check the OIL LEVEL at least once a week. Add ONLY the type and grade of oil specified for this pump. (See “Specifications and Features” sheet.)

3. CHANGE OIL as recommended.

4. After you use chemical additives, thoroughly FLUSH the system with clean water.

5. Never run the washer without water. TURN WATER ON FIRST.

6. PROTECT FROM FREEZING! When transporting your washer in temperatures below 32°F (0°C), WINTERIZE the pump, hoses and gun.

HOW TO WINTERIZE YOUR PRESSURE WASHER

1. Shut off the water supply, and disconnect hose.

2. You need a short (2’) length of hose with a male garden hose fitting on one end.

3. Connect the short hose to the inlet of the machine.

4. Put the other end of the water hose into a container of windshield washer or anti-freeze.

5. Turn on the Cleaner and open gun until liquid comes out of the nozzle “foamy” or “soapy”.

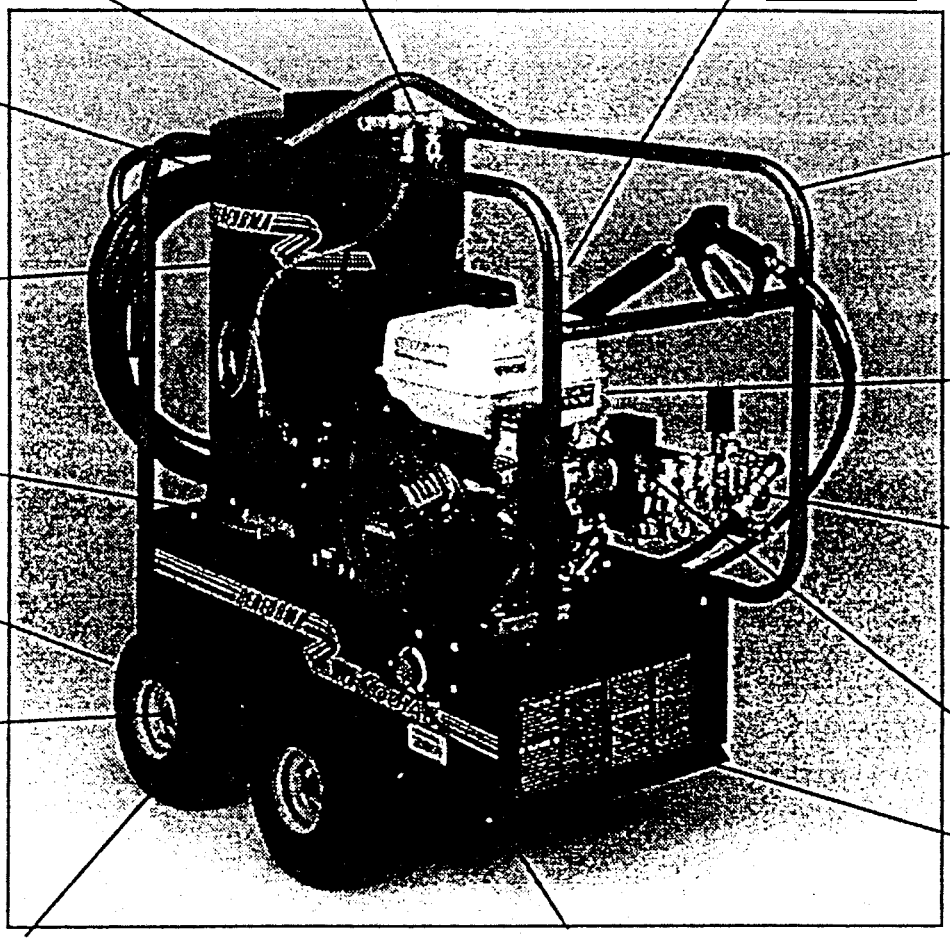
6. Put gun in “OFF” position for 5 seconds to get anti-freeze into bypass line. Shut off motor, unit is now winterized.

SPECIFICATIONS AND FEATURES

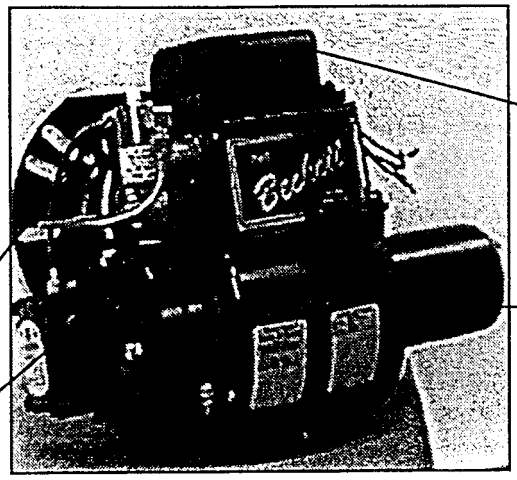
HOT WATER MODE	Pressure PSI Volume GPM (US) Nozzle Size Water Temperature °F Engine Gas HP	3500 3.8 4.0 (175-212)* 13
VOLTAGES	12 Volt Burner	
BURNER	Burner BTU's Firing Rate GPH (US) Fuel Pressure PSI Fuel Nozzle (80° angle) Fuel type	289,000 1.98 140 175 No. 1 or No. 2 Fuel Oil
SAFETY COMPONENTS	Unloader Pressure Switch Adjustable Thermostat Pressure Relief Valve	Standard Standard Standard Standard
FEATURES	Gun Wand Hose Portable model Paint – Epoxy Powder Downstream Injector Coil – Pipe Schedule Pump MFG Oil for Pump Dimensions (LxWxH) in. (Crated) Weight (pounds) (Shipping)	Shut-Off Gun 4500 PSI 48" Lance 50 Ft. 250°F Rating Standard Standard Standard 80 Interpump SAE 20W or 30W 50x35x57 440

* Note: water temperature varies with the volume and pressure settings, and the water inlet temperature

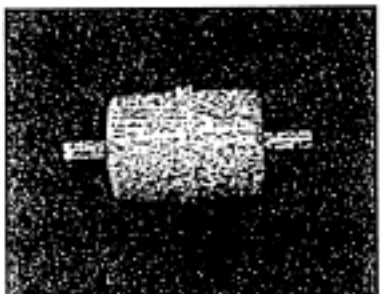
MAJOR COMPONENTS



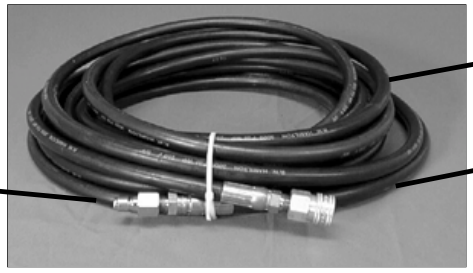
Nota
Engine Manual is Included with each Unit



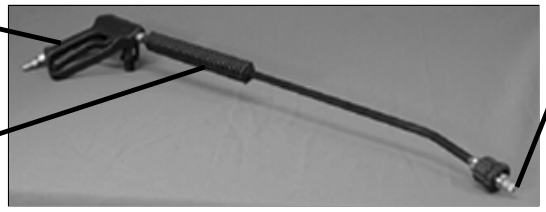
JB301 Beckett Burner ADC –12 Volts



Wix Fuel Oil filter
HW33001



Hose 50 Ft.



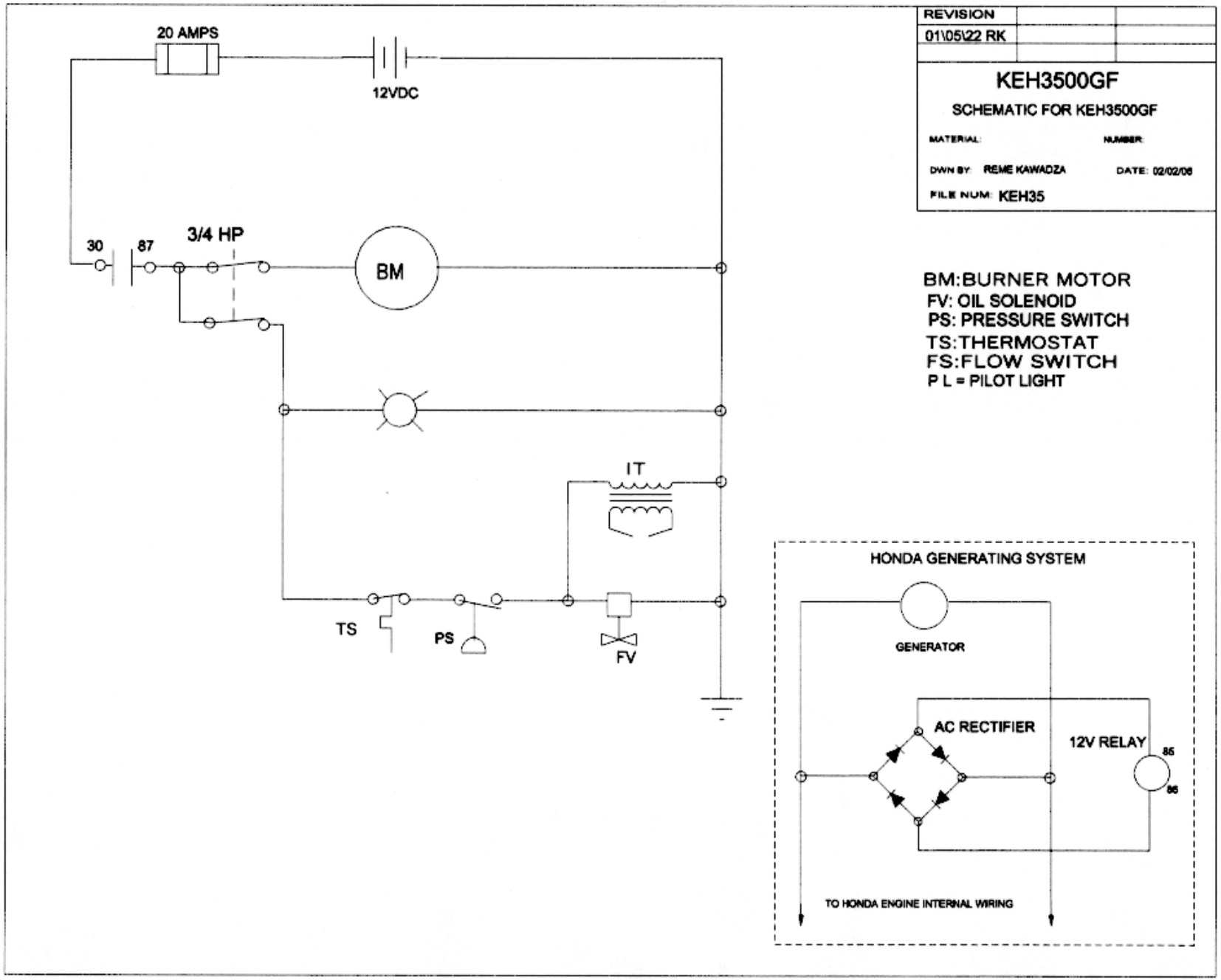
Gun & Wand

TROUBLE SHOOTING

TROUBLE	POSSIBLE CAUSE	REMEDY
Low Pressure	Leaks in water system	Tighten all fittings.
	Insufficient water supply	Fill tank or increase line size to machine.
	Outlet orifice worn or wrong size	Replace with correct orifice. CAUTION: Do not use smaller than recommended. Excessive pressure will damage pump.
	Gun control unloader valve bypass leak	Repair or replace unloader valve.
	Dirty or worn check valves in pump	Replace or clean. Refer to high pressure pump manual.
	Cylinder cups leaking and/or worn cylinder sleeves	Replace. Refer to high pressure pump manual.
Excessive Pressure	Outlet orifice restricted	Remove orifice at tip of gun and clean. Flush coil with water before replacing.
	Scale or dirt in coils	De-scale coils.
	Pump speed too high	Check water output GPM.
Relief Valve Operates	Relief valve set at low pressure	Re-adjust relief valve.
	Relief valve dripping after adjustment	Replace valve.
	Unloader valve stuck	Repair unloader valve.
Weak or no chemical at nozzle	Clogged soap screens	Clean or replace.
	Air leak around soap siphon check valve and/or metering valve leaking	Tighten all fittings and tubing.

TROUBLE SHOOTING (CONTINUED)

TROUBLE	POSSIBLE CAUSE	REMEDY
Burner will not ignite	No fuel	Fill fuel tank and check fuel filter for water and other contaminants.
	Electrodes out of alignment	Adjust.
	Electrode insulator failure	Check for breaks, cracks, or spark trails – Replace.
	Water flow switch not closing	Adjust, repair or replace.
	Fuel solenoid valve not opening	Clean, repair or replace.
	Weak transformer	Clean and check transformer terminals. Replace if necessary. Check for spark.
	Plugged oil nozzle	Replace (do not clean).
	Faulty burner oil pump	Adjust or replace.
Unit smokes	Improper fuel	Use No. 1 or No. 2 Fuel oil.
	Air to burner insufficient	Air adjustment or burner – Remove soot from coils.
	Fuel nozzle interior loose	Replace nozzle.
Water temperature too low	Thermostat adjustment	Adjust the thermostat to desired temperature.
	Coils liming up	Descale.
	Improper combustion	Readjust burner.


20 AMPS
12VDC
30
87
3/4 HP
BM
IT
TS
PS
FV
REVISION
01\05\22 RK
KEH3500GF
SCHEMATIC FOR KEH3500GF
MATERIAL:
NUMBER:
DWN BY: REME KAWADZA
DATE: 02/02/06
FILE NUM: KEH35
BM:BURNER MOTOR
FV: OIL SOLENOID
PS: PRESSURE SWITCH
TS:THERMOSTAT
FS:FLOW SWITCH
P L = PILOT LIGHT
HONDA GENERATING SYSTEM
GENERATOR
AC RECTIFIER
12V RELAY
85
86
TO HONDA ENGINE INTERNAL WIRING

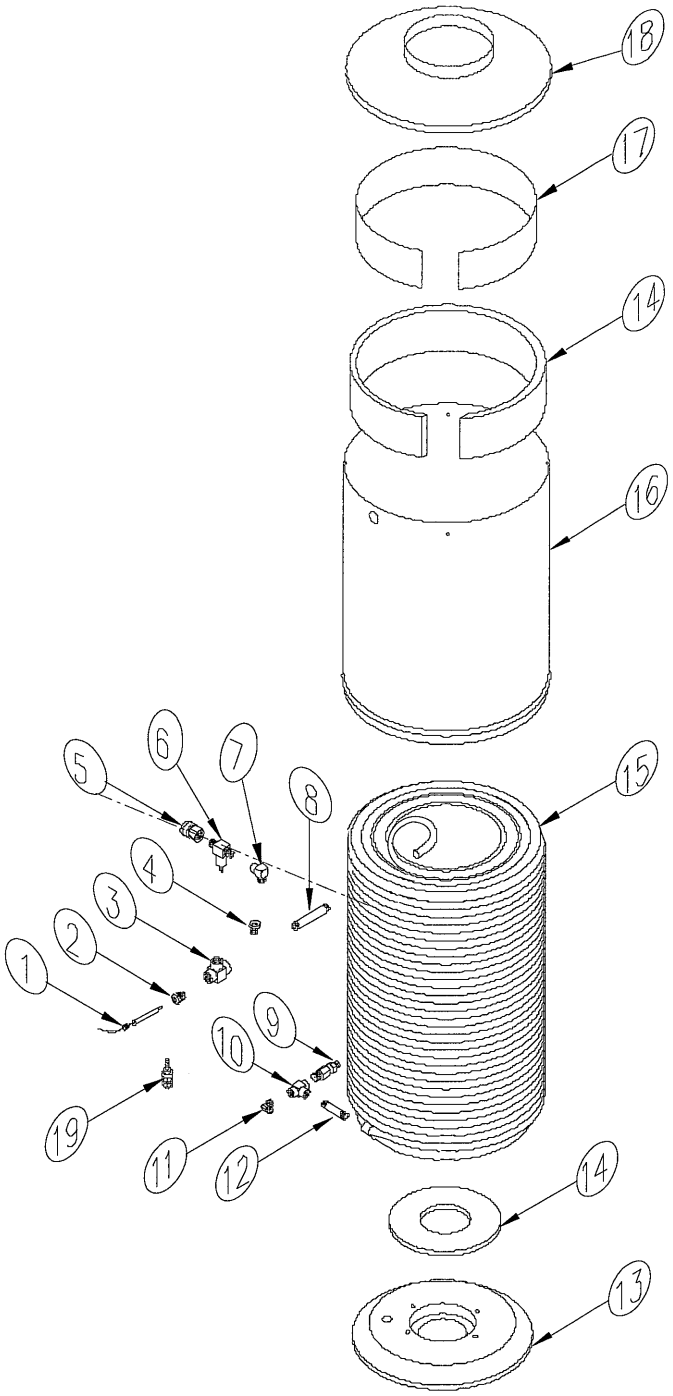
Dynablast®

Illustrated Parts Manual

DGF H4035

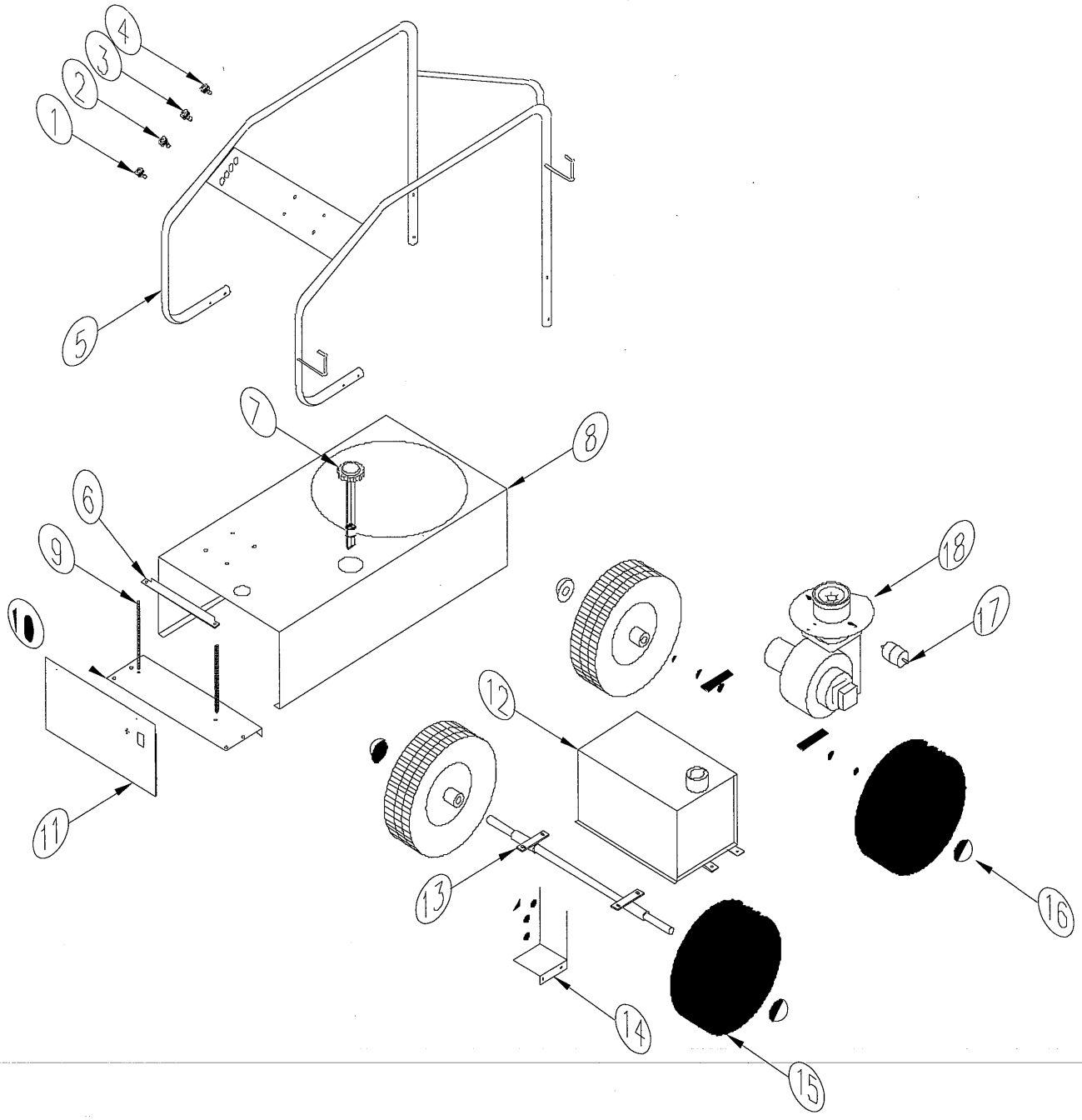
PMH4035DGF-030606

H4035DGF Coil Assembly



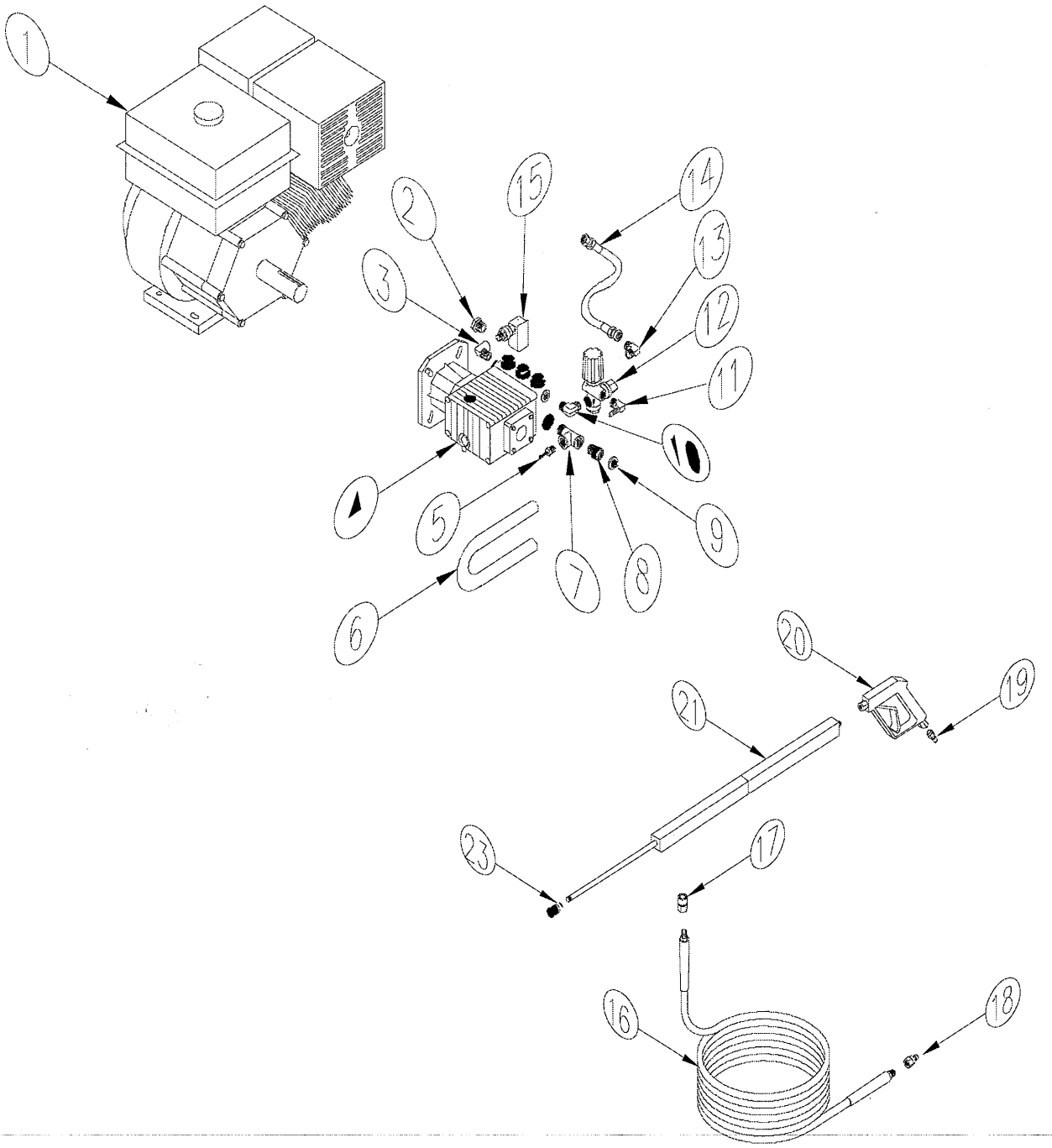
Ref #	Description	Part Number	Ref #	Description	Part Number
1	Thermostat	HWTR86	11	Elbow	FIS.3749-6C
2	Reducing Bushing 3/8nptf to 1/2nptm	HWEP40096	12	Pipe Nipple	EP.40096
3	Tee 1/2' npt	FIS.1001-D	13	Burner Base	HW24453
4	Reducing Bushing 3/8nptf to 1/2nptm	FIS.1010DC	14	Insulation Kit	HW40194
5	Quick connect Socket	QC7218	15	Coil	HW40055
6	Chemical Injector	CJ1B	16	Coil Skin	HW24575
7	Elbow 3/8nptm to 3/8 nptf	FIS.1015-C	17	Insulation retainer Ring	
8	Pipe Nipple 1/2" nptm x 3"	FI.MP113-D3H	18	Coil Cap	HW24559
9	Pressure Relief Valve	HWRV500B1	19	Chemical Filter	F1I
10	Tee 1/2' npt	FIS.1001-D			

H4035DGF Frame Assembly



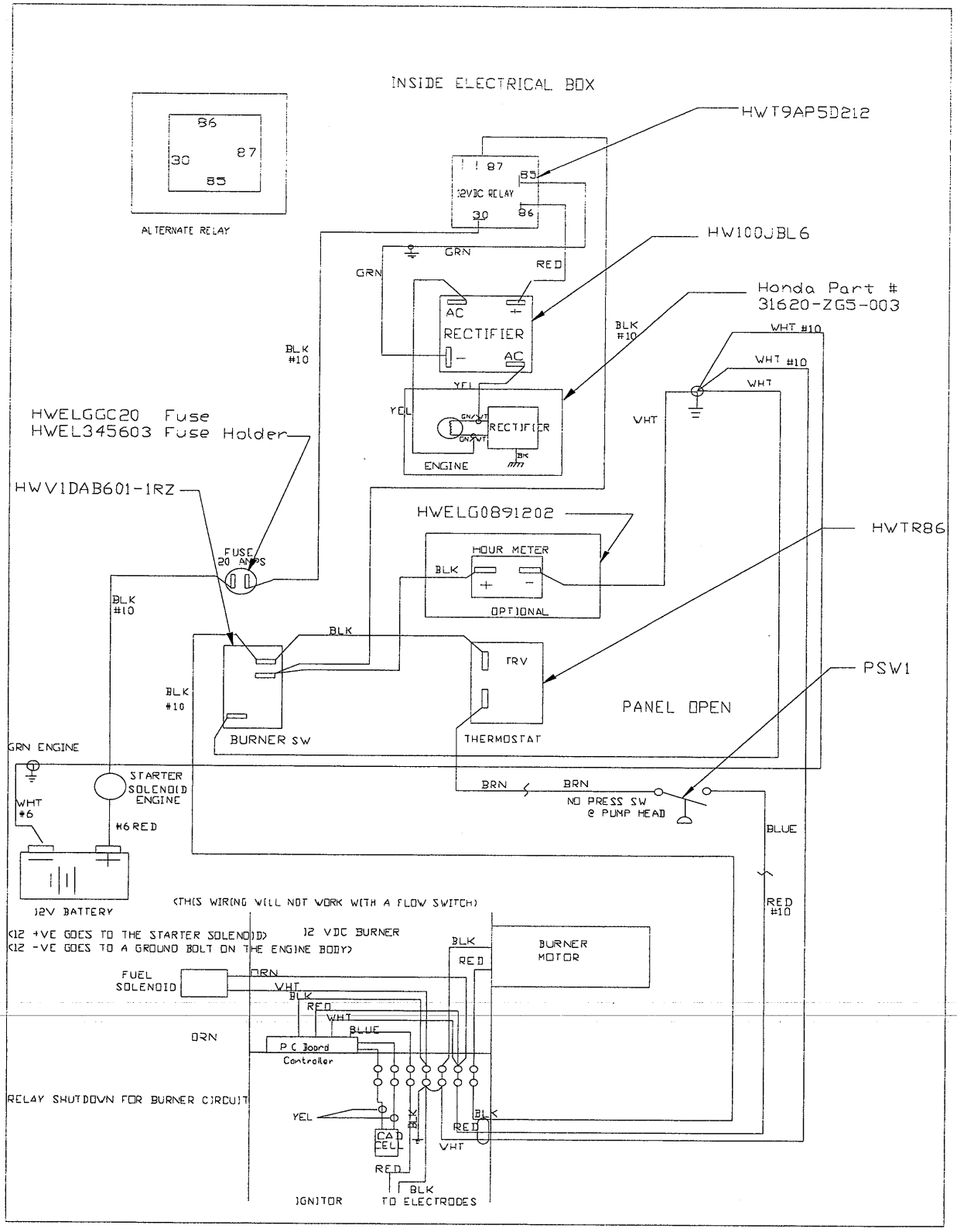
Ref #	Description	Part Number	Ref #	Description	Part Number
1	QC Nozzle (Soap)	QCEM2540	10	Battery Base	HWEP24587
2	QC Nozzle (0)	QCMEG0004LV	11	Control Pannel	HWEP24589L
3	QC Nozzle (15)	QCMEG1504LV	12	Fuel Tank	HW24573
4	QC Nozzle (25)	QCMEG2504LV	13	Axle Weldment	HWEP40560
5	Roll Cage	HW24570R	14	Electrial Enclosure	HWEP24588L
6	Battery Hold Down Bracket	HWEP24507	15	13" Pnumatic Wheel	HW40554A
7	Fuel Filler Cap / Level Indicator	HW201634	16	Wheel Retainer	HW40558
8	Frame	HWEP24571	17	Fuel Filter	HW33001
9	1/4" Threaded Rod	HWEP20575	18	Burner Assembly (refer to page 7)	JB101

H4035DGF Cold Water System

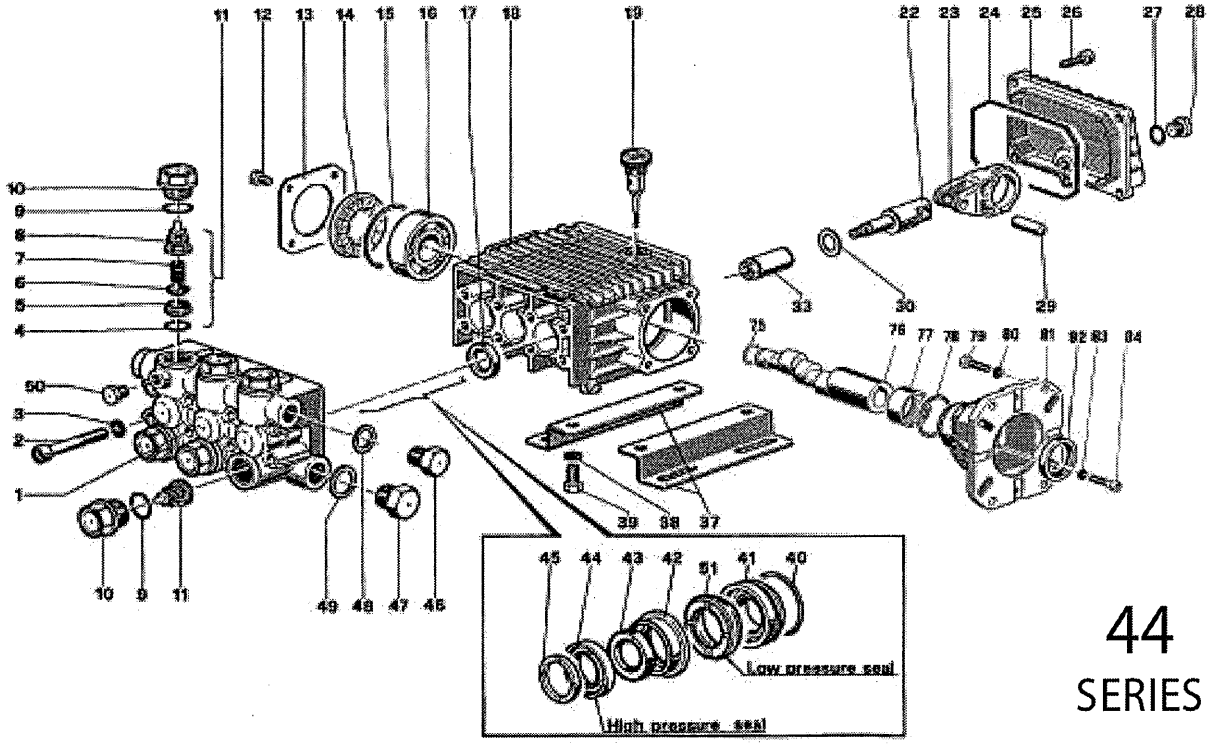


Ref #	Description	Part Number	Ref #	Description	Part Number
1	13 hp Engine w 18 amp coil	GX390KQNR6	12	Easy Start Unloader Valve	UVP280ES
2	Thermal Pump Protector	60063070P	13	3/8 nptm to 1/4" bsptm elbow	FIS3749-6C
3	3/8 nptm to 1/4 nptf Steel Elbow	FIS.1015-BC	14	Junction Hose	FI 59LD
4	4000 psi Plunger Pump	WW965BC	15	Pressure Switch	PSW1
5	3/8" Barb to 1/2" nptm	FI.125-8B	16	50 ' Pressure Washer Hose	HW504000
6	Bypass hose 250 psi rated 18"	FIPVC128	17	Quick Connect Socket 3/8 nptf	QC7218
7	1/2" Tee	FIS1001-D	18	Quick Connect Plug 3/8 nptf	QC7195
8	Garden hose adapter	FI 194-D	19	Quick Connect Plug 3/8 nptm	QC7196
9	Inlet Screen and washer	38000035	20	Trigger Gun	G250VA
10	3/8 nptm to 3/8 nptmSteel Elbow	FIS1099-C	21	48" Lance	Z12
11	3/8 barb to 3/8 nptm elbow	FI 139-8C	22	Quick Connect Socket 1/4 nptf	QC7214

Wiring Digram



WW965C



44
SERIES

WW965C
VERSION
C

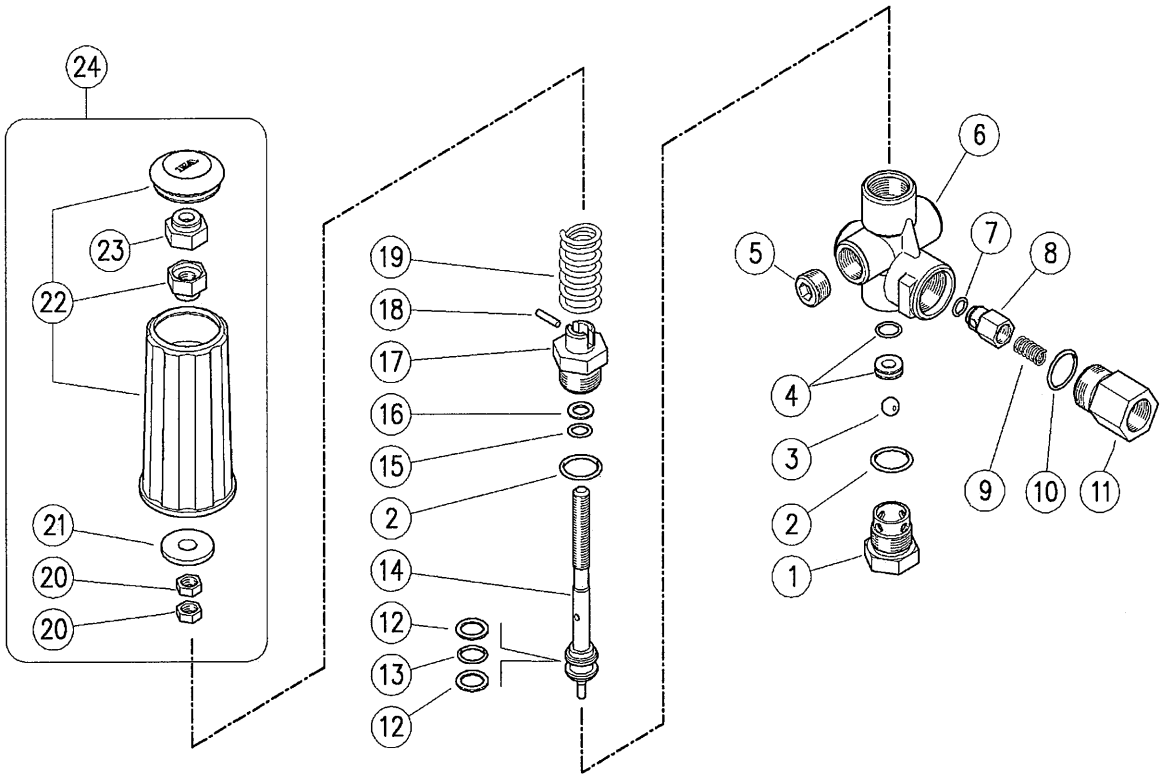
KIT N.	KIT 23	KIT 123	KIT 152	KIT 153	KIT 154	KIT 155	KIT 156	KIT 158
Positions Included	17	4-5-6 7-8 (11)	40-41	43-44 51	42	45	40-41 42-43 44-45 51	9-10
N. pcs.	3	6	3	3	3	3	3	6

Torque Specs										
Position	2	10	12	26	28	46	47	50	79	84
Ft - lbs	14.7	73.7	7.3	7.3	14.7	29.4	29.4	9.6	14.7	7.3
N-M	20	100	10	10	20	40	40	13	20	10

POS.	Part Number	DESCRIPTION		N. POS.
1	44.1208.41	Manifold (plunger Ø 13)		1
2	99.3175.00	Screw M8x60		8
3	96.7014.00	Washer		8
4	90.3841.00	O-Ring 17,13x2,62	KIT 123	6
5	36.2003.66	Valve Seat	KIT 123	6
6	36.2001.76	Poppet	KIT 123	6
7	94.7376.00	Spring 9,4x14,8	KIT 123	6
8	36.2025.51	Valve Cage	KIT 123	6
9	90.3847.00	O-Ring 20,24x2,62	KIT 158	6
10	98.2225.00	Valve Cap M 24x1,5x17	KIT 158	6
11	36.7115.01	Valve Assembly	KIT 123	6
12	99.1807.00	Bolt M6x10		4
13	50.1500.74	Bearing Retainer		1
14	44.2118.01	Oil Level Indicator		1
15	90.4097.00	O-Ring 55,56x3,53		1
16	91.8328.00	Ball Bearing 6305		1
17	90.1614.00	Oil Seal 20x30x5	KIT 23	3
18	44.0100.22	Crankcase		1
19	98.2103.00	Oil Dipstick		1
22	44.0501.66	Plunger Guide		3
23	44.0300.22	Connecting Rod		3
24	90.3920.00	O-Ring 101,27x2,62		1
25	44.1600.22	Crankcase Cover		1
26	99.1837.00	Screw M6x14		5
27	90.3585.00	O-Ring 10,82x1,78		1
28	98.2041.00	Cap Screw G1/4x9		1
29	97.7340.00	Wrist Pin 10x29,5		3
30	96.6967.00	Washer 7,1x28		3
33	44.0402.66	Plunger 13mm Ceramic Coated		3

POS.	Part Number	DESCRIPTION		N. POS.
37	50.2000.74	mounting Rails		2
38	96.7016.00	Washer 8 UNI 1751		4
39	99.3037.00	Screw M8x16		4
40	90.3612.00	O-Ring 31,47x1,78	KIT 152 - 156	3
41	44.0803.70	Packing Retainer 13	KIT 152 - 156	3
42	44.2162.70	Intermediate Ring 13	KIT 154 - 156	3
43	90.5076.00	Packing 13x17x2	KIT 153 - 156	3
44	90.2602.00	Packing 13 H.P. seal	KIT 153 - 156	3
45	44.1002.51	Head Ring 13	KIT 155 - 156	3
46	98.2100.00	Plug G 3/8x13		1
47	98.2176.00	Plug G 1/2x10		1
48	96.7380.00	Washer 17,5x23x1,5		1
49	96.7514.00	Washer 21,5x27x1,5		1
50	98.1967.00	Plug G 1/8x8 -		1
51	90.2603.00	Packing 13 L.P. seal	KIT 153 - 156	3
75	90.0635.00	Retaining Ring		1
76	44.0209.65	Crankshaft WW963C		1
	44.0212.65	Crankshaft WW964C		1
	44.0221.65	Crankshaft WW965C		1
77	91.8568.00	Roller Bearing		1
78	90.4097.00	O-Ring 55,56x3,53		1
79	99.2755.00	Screw 5/16x10 UNF		4
	99.3345.00	Screw 3/8x10 UNC		4
80	96.7020.00	Washer 8		4
	96.7104.00	Washer 10		4
81	10.0518.22	Gas Flange SAEJ609		1
82	90.1690.00	Oil Seal 45x62x8		1
83	96.6938.00	Washer 6 Schnorr		4
84	99.1912.00	Vite M6x30 UNI 5931		4

UVP280ES Unloader Valve with easy start valve

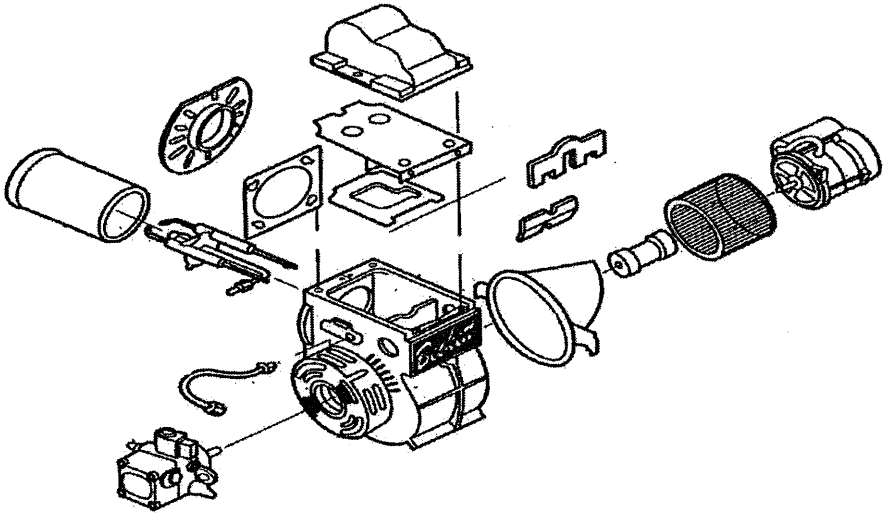


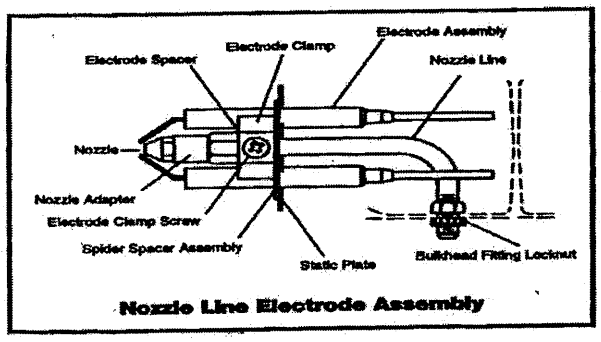
Pos.	P/N	Description	Q.ty	K1					
1	60.0063.31P	Easy starter plug -Pulsar 280	1						
2	10.3068.01P	O-ring, 1,78x17,17 mm Ni 85	2	•					
3	14.7461.00P	Ball, 13/32" Sst.	1	•					
4	60.0259.20P	Seat, 8mm + O-ring, 1,78mm NBR85	1	•					
5	60.0025.31P	Grub screw, brass 3/8M Npt	1						
6	60.0075.35P	Housing -Pulsar280, 3/8 Npt FFF brass	1						
7	10.3213.08P	O-ring, 3x6 mm Ni 90	1	•					
8	60.0052.31P	Shutter pin, brass	1						
9	60.0053.51P	Spring, 0,7x9x20 mm Sst.	1						
10	10.3070.02P	O-ring, 1,78x18,77 mm Ni 85	1	•					
12	60.0059.31P	Delivery coupl., 3/8F Npt brass	1						
12	10.4021.00P	Back-up ring, opn. 11,5x15,9x1,2 mm	2	•					

Pos.	P/N	Description	Q.ty	K1					
13	10.3175.08P	O-ring, 2,62x10,77 mm Ni 85	1	•					
14	60.0061.23P	Valve piston, Sst.	1						
15	10.3170.08P	O-ring, 2,62x7,6 mm Ni 85	1	•					
16	10.4020.00P	Back-up ring, 8x12,6x1,2 mm	1	•					
17	60.0064.31P	Piston holder, brass	1						
18	15.1021.00P	Roll pin, 3x14 mm Sst.	1						
19	60.0033.61P	Spring, 5,7x26x53 mm blue	1						
20	11.4573.31P	Hex. nut, M8, brass	2						
21	14.3720.40P	Washer, 9,2x24x0,5 mm	1						
22	60.0004.24P	Knob + Plug -Pulsar3	1						
23	11.4589.10P	Hex. locknut, M8	1						
24	60.0014.24P	Knob Kit -Pulsar3, 6x1pcs.	1						

Kit	P/N	Description	
K1	60.0054.24P	Spares kit -Pulsar280, 10x1pcs.	1

ADC Burner 12VDC EP601 **Model Numbers H4035DGF KEH3500DF**

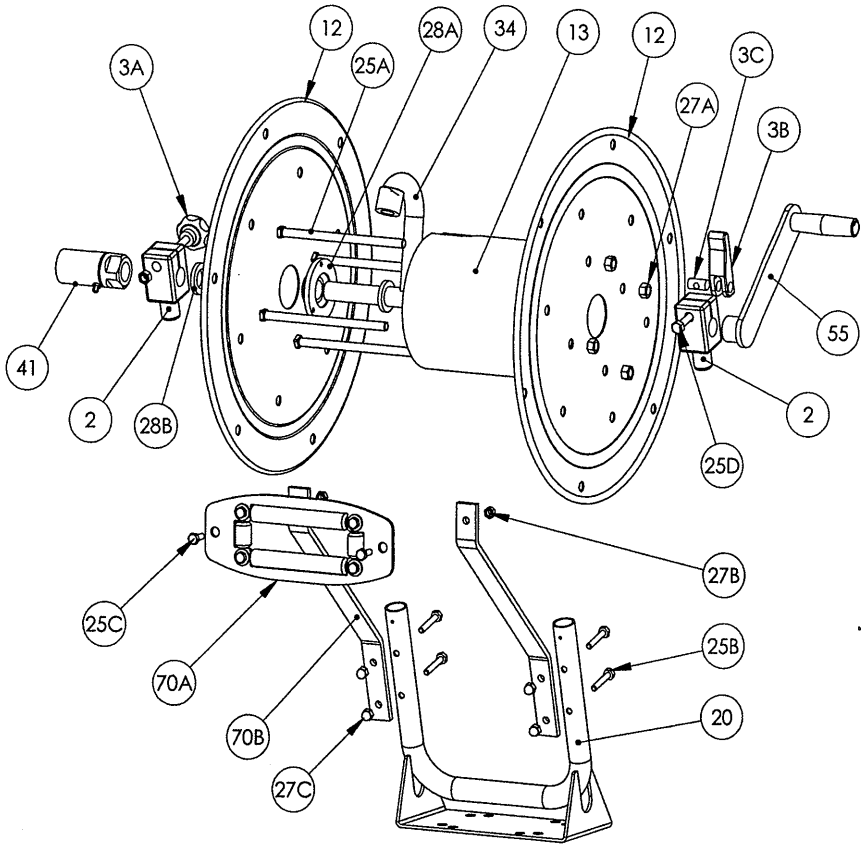




Nozzle Line Electrode Assembly

Description	Part No.
Motor 1/6HP 3450RPM	HW21699UF
Blower Wheel	HW21404U
Coupling	HW21405
Pump A2VA7116	HW2460U
Pump A2EA6520 + 12V coil	HW2184402U
Valve R621NL Suntec	HW21441U
Igniter with Control Board, on bade plate	HW51776U
Detector (C554A Cad-Cell)	HW7006U
Nozzle Line Electrodes Assembly	HWNL44XN
Head 360022	HWF22
Electrodes replacement kit	HW5780
Coil only, for valve 12VDC	HW21754U
Gasket, Burner to Frame	HW3616
Gasket, Blower to Flange	HW3613

Hose Reel (Optional)



Junction hose (not show) HW115EXT

Item No.	Description	PAR T NUMBER	Quantity
2	1/2" Split Bearing, P02A-00130	9902.1250	2
3A	Brake Wheel	9949.0065	2
3B	Cam Lock Lever	9947.0132	1
3C	Brass Barrel Nut for Cam Lever Brake	9947.0133	1
12	Disc, 16-1/2" Diameter	9903.0516	1
13	Drum, 6" Dia x 6" Long .(specify model PW-2)	9905.7112	1
20	Frame Assembly, GH-1950	9908.1025	1
25A	3/8"-16 Carriage Bolt w/ Nut	9904.0214	4
25B	1/4"-20 x 1-1/2" Hex Head Bolt	9904.1004	4
25C	1/4"-20 x 3/4" Hex Head Bolt	9904.1001	6
25D	5/16"-18 x 2-1/4" Hex Head Bolt	9904.1107	2
27A	3/8"-16 Spinlock Nut	9904.6200	4
27B	5/16"-18 Spinlock Nut	9904.6100	7
27C	1/4"-20 Acorn Nut	9958.0037	4
28A	Disc Washer	9965.0040	2
28B	1/2" Hub Spacer Washer	9954.0020	1
28C	5/16" Flat Washer (not shown)	9954.0006	2
29	1/8" x 1" Roll Pin (not shown)	9958.0085	2
34	1/2" Hub Assy. w/ 3/8" FNPT Riser .(specify model PW-2)	9901.0610	1
41	1/2" 90 Degree F x F Swivel Joint	9927.8551	1
55	Hand Crank Complete (includes hardware)	9914.0021	1
70A	PW-2 Roller Assembly Complete	9939.0081	1
70B	Roller Mounting Bracket, P70A-00770 (PW-2)	9941.0211	2